



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/588,317

12/29/2006

Vladimir Vladimirovich Korenkov

4874-7005

5717

85775 7590 05/26/2009

Locke Lord Bissell & Liddell LLP

Attn: IP Docketing

Three World Financial Center

New York, NY 10281-2101

EXAMINER

JONAITIS, JUSTIN M

ART UNIT

PAPER NUMBER

3752

NOTIFICATION DATE

DELIVERY MODE

05/26/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptopatentcommunication@lockelord.com

Office Action Summary	Application No. 10/588,317	Applicant(s) KORENKOV ET AL.	
	Examiner JUSTIN JONAITIS	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/03/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 3752

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the deceleration elements of claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 3752

2. Claims 5-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the claims refer to components which can be seen in figures 2-5. It's not clear how the device shown in figure 2 relates to the device of figures 3-5, claims 3-9 disclose structural relationships between the components shown in figures 2-5 which are not clearly shown.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 1 states on line 5 "container (6) containing the fire-suppressing device (2)," but states earlier that device (2) has a container (6). Examiner assumes the applicant meant --container (6) containing the fire-suppressing agent (7)--
For examination purposes, examiner will examine the claim as interpreted above.

5. Claims 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claims 5-9 state the fire-suppressing device of effecting the method of claim 1. It's unclear if applicant is trying to patent the device or the method of suppressing a fire. Further, claim 5 discloses a flexible link attached to the stabilizer, however the spec does not seem to disclose any particular importance to the flexible link. Further still it's unclear what the deceleration elements in the releasing mechanism of claim 6 encompass.

Art Unit: 3752

Due to the examiner's lack of understanding of the structural relationships as disclosed above, claims 5-9 will not be further examined on their merits.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-4 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent #3,382,800 to Biggs Jr. in view of U.S. Patent #4,651,648 to Alom.

Art Unit: 3752

In re claims 1-4, Biggs Jr. discloses a method of suppression of a fire consisting of an air shock wave (created by the dropping of the device) and high-velocity flow of an aerosolizable mixture of fire extinguishing agent (liquid chemical agent (A)) created due to explosion of a fire-suppressing device (chemical bomb (B)) having a dispersing charge (charge (26)) and a container (chambers (c1), (c2), & (c3)) with a fire-extinguishing agent, characterized in that the container containing the fire-suppressant is equipped with structural elements providing delivery of the fire-suppressing device to a fire zone (rear stabilizers), where the installing of the fire-suppressing device on the path of fire propagation is affected by an operator's command (pilot manually launches the missile).

Biggs Jr. does not disclose the structural elements being separated from the container prior to the explosion of the dispersing charge.

Alon teaches that it is known to create an aircraft carried ballistic with components that separate prior to the explosion of the dispersion charge [column 5, line 25 – column 6, line 23], which separates from the container along the trajectory of the movement of the fire-suppressing device, where the structural elements are imparted an additional running speed relative to the running speed of the container (parachute of the tail section slows the structural elements relative to the main body).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the structural elements separable prior to the explosion of the dispersing charge as taught by Alon, since Alon states in column 3, lines 32-37 that such modification provides a braking force to the tail section, and further states in column 6, lines 42-47 the parachutes allow for a soft landing of components.

Art Unit: 3752

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent #6,622,971 to Robertson discloses a rocket that has multiple structural elements separating from one another. U.S. Patent #1,903,348 to Anderson discloses an aerial bomb for use with fire fighting agents. U.S. Patent #7,121,353 to Setzer discloses an airborne vehicle for firefighting which has some similar structures. U.S. Patent #7,478,680 to Sridharan et al. discloses a fire extinguisher with similar structures. U.S. Patent #6,470,805 to Woodall et al. discloses fire retardant munitions with some similar structure and components. U.S. Patent #6,142,424 to Wagner discloses a aerial vehicle with separable components. U.S. Patent #7,082,878 to Facciano et al. discloses a missile with multiple sections that separate prior to the dispersing charge. U.S. Patent #4,932,325 to Hitter discloses a safety device for a body fuse with similar structure. U.S. Patent #5,585,596 to Richards et al. discloses a separation system that provides thrust for separation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN JONAITIS whose telephone number is (571)270-5150. The examiner can normally be reached on Monday - Thurs 6:30am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUSTIN JONAITIS/
Examiner, Art Unit 3752
/Len Tran/
Supervisory Patent Examiner, Art Unit 3752